97

CLAIMS

We claim:

- 1. A method of treating a susceptible cancer in a mammal, comprising: administering to said mammal therapeutically effective amounts of (i) at least one erb family inhibitor and (ii) at least one of a PI3K and an Akt inhibitor.
- 2. A method of treating a susceptible cancer in a mammal, comprising: administering to said mammal therapeutically effective amounts of (i) a compound of formula (I)

or a salt, solvate, physiologically functional derivative thereof;

wherein

Y is CR¹ and V is N; or Y is CR¹ and V is CR²;

R¹ represents a group CH₃SO₂CH₂CH₂NHCH₂-Ar-, wherein Ar is selected from phenyl, furan, thiophene, pyrrole and thiazole, each of which may optionally be substituted by one or two halo, C₁₋₄ alkyl or C₁₋₄ alkoxy groups;

 R^2 is selected from the group comprising hydrogen, halo, hydroxy, C_{1-4} alkyl, C_{1-4} alkylamino and di[C_{1-4} alkyl]amino;

U represents a phenyl, pyridyl, 3<u>H</u>-imidazolyl, indolyl, isoindolyl, indolinyl, isoindolinyl, 1<u>H</u>-indazolyl, 2,3-dihydro-1<u>H</u>-indazolyl, 1<u>H</u>-benzimidazolyl or 1<u>H</u>-benzotriazolyl group, substituted by an R³ group and optionally substituted by at least one independently selected R⁴ group;

R³ is selected from a group comprising benzyl, halo-, dihalo- and trihalobenzyl, benzoyl, pyridylmethyl, pyridylmethoxy, phenoxy, benzyloxy, halo-, dihalo- and trihalobenzyloxy and benzenesulphonyl;

or R³ represents trihalomethylbenzyl or trihalomethylbenzyloxy;

or R³ represents a group of formula

wherein each R^5 is independently selected from halogen, $C_{1\!-\!4}$ alkyl and $C_{1\!-\!4}$ alkoxy; and n is 0 to 3;

each R^4 is independently hydroxy, halogen, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, amino, C_{1-4} alkylamino, di[C_{1-4} alkyl]amino, C_{1-4} alkylthio, C_{1-4} alkylsulphinyl, C_{1-4} alkylsulphonyl, C_{1-4} alkylcarbonyl, carboxy, carbamoyl, C_{1-4} alkoxycarbonyl, C_{1-4} alkyl)carbamoyl, N,N-di(C_{1-4} alkyl)carbamoyl, cyano, nitro and trifluoromethyl; and

(ii) at least one of a PI3K and an Akt inhibitor.

3. A method of treating a susceptible cancer in a mammal, comprising: administering to said mammal therapeutically effective amounts of (i) a compound of formula (II):

or salt or solvates thereof, wherein R is -Cl or -Br, X is CH , N, or CF, and Z is thiazole or furan; and

- (ii) at least one of a PI3K and an Akt inhibitor.
- 4. A method of treating a susceptible cancer in a mammal, comprising: administering to said mammal therapeutically effective amounts of (i) a compound of formula (III):

or salts or solvates thereof; and

- (ii) at least one of a PI3K and an Akt inhibitor.
- 5. A cancer treatment combination, comprising: therapeutically effective amounts of (i) at least one erb family inhibitor and (ii) at least one of a PI3K and an Akt inhibitor.
- 6. A cancer treatment combination, comprising: therapeutically effective amounts of (i) a compound of formula (I)

or a salt, solvate, or physiologically functional derivative thereof;

wherein

Y is CR¹ and V is N; or Y is CR¹ and V is CR²; R^1 represents a group $CH_3SO_2CH_2CH_2NHCH_2$ -Ar-, wherein Ar is selected from phenyl, furan, thiophene, pyrrole and thiazole, each of which may optionally be substituted by one or two halo, C_{1-4} alkyl or C_{1-4} alkoxy groups;

 R^2 is selected from the group comprising hydrogen, halo, hydroxy, C_{1-4} alkyl, C_{1-4} alkylamino and di[C_{1-4} alkyl]amino;

U represents a phenyl, pyridyl, 3<u>H</u>-imidazolyl, indolyl, isoindolyl, indolinyl, isoindolyl, 1<u>H</u>-indazolyl, 2,3-dihydro-1<u>H</u>-indazolyl, 1<u>H</u>-benzimidazolyl, 2,3-dihydro-1<u>H</u>-benzimidazolyl or 1<u>H</u>-benzotriazolyl group, substituted by an R³ group and optionally substituted by at least one independently selected R⁴ group;

R³ is selected from a group comprising benzyl, halo-, dihalo- and trihalobenzyl, benzoyl, pyridylmethyl, pyridylmethoxy, phenoxy, benzyloxy, halo-, dihalo- and trihalobenzyloxy and benzenesulphonyl;

or R³ represents trihalomethylbenzyl or trihalomethylbenzyloxy;

or R³ represents a group of formula

wherein each R^5 is independently selected from halogen, C_{1-4} alkyl and C_{1-4} alkoxy; and n is 0 to 3;

each R^4 is independently hydroxy, halogen, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, amino, C_{1-4} alkylamino, di[C_{1-4} alkyl]amino, C_{1-4} alkylthio, C_{1-4} alkylsulphonyl, C_{1-4} alkylcarbonyl, carboxy, carbamoyl, C_{1-4} alkoxycarbonyl, C_{1-4} alkyloarbamoyl, C_{1-4} alkyl)carbamoyl, C_{1-4} alkyl)carbamoyl, C_{1-4} alkyl)carbamoyl, C_{1-4} alkyl)carbamoyl, cyano, nitro and trifluoromethyl; and

(ii) at least one of a PI3K and an Akt inhibitor.

7. A cancer treatment combination, comprising: therapeutically effective amounts of (i) a compound of formula (II):

or salt or solvates thereof, wherein R is -Cl or -Br, X is CH , N, or CF, and Z is thiazole or furan; and

(ii) at least one of a PI3K and an Akt inhibitor.

8. A cancer treatment combination, comprising: therapeutically effective amounts of (i) a compound of formula (III):

or salts or solvates thereof; and

- (ii) at least one of a PI3K and an Akt inhibitor.
- 9. A cancer treatment combination, comprising: therapeutically effective amounts of (i) at least one erb family inhibitor and (ii) at least one of a PI3K and an Akt inhibitor for use in therapy.
- 10. A cancer treatment combination, comprising: therapeutically effective amounts of (i) at least one erb family inhibitor and (ii) at least one of a PI3K and an Akt inhibitor in the preparation of a medicament for use in the treatment of a susceptible cancer.